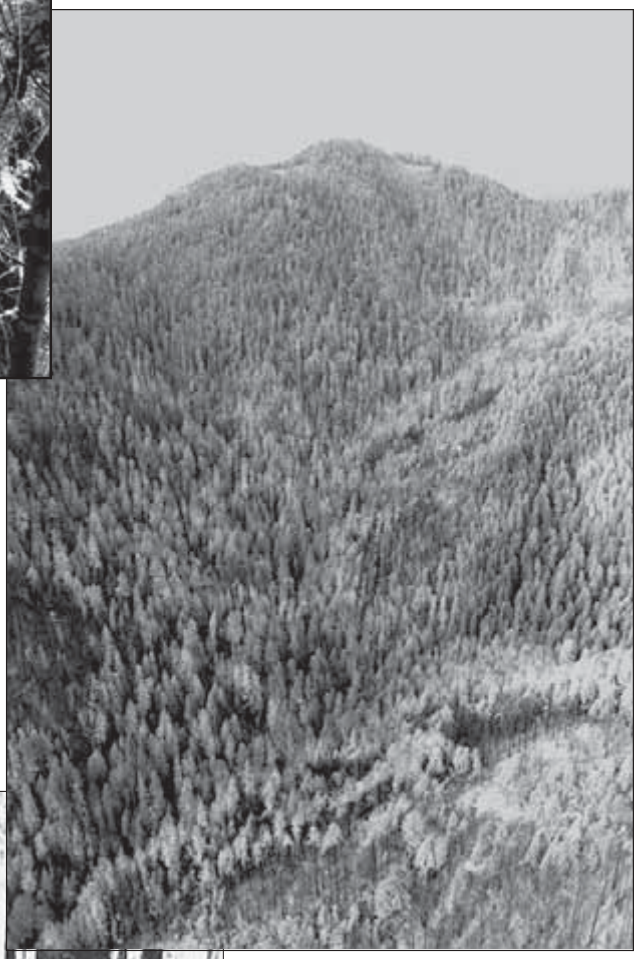
Chapter 1
Purpose of and Need for Action



Changes between the Draft EIS and Final EIS

The following changes were made to Chapter 1 between the Draft EIS and Final EIS.
Minor corrections, explanations, and edits are not included on this list.

- Additional quotes from the South Cascades LSRA were added to Section 1.2.3 - Controversy.
- Additional information regarding “Adaptive Management” from the NFP was added to Section 1.4 - Legal Requirements.
- Section 1.4.2.1 - Consultation with American Indian Tribes was added.
- Section 1.4.2.2 was updated to document the results of consultation with USFWS and NOAA-Fish.

1.0 Purpose of and Need for Action

- Introduction to EIS
- Purpose and Need
- Project Area Description
- Public Involvement
- Legal Framework
- Consultation
- Scoping and Issue Identification
- Decisions to be Made

1.1 Introduction

The Timbered Rock Fire began Saturday, July 13 from a lightning strike on Timbered Rock. Two other fires located in the immediate vicinity were contained at less than one-half acre. This storm ignited 31 fires. A large portion of these fires occurred within the wildland urban interface. The Timbered Rock Fire burned with varying degrees of intensity across approximately 27,000 acres of high elevation (4,600 feet) mixed conifer and low elevation (2,000 feet) mixed conifer/hardwood. About 12,000 acres of BLM-administered land, primarily within the Elk Creek Late-Successional Reserve (LSR), were burned. The point of origin was located approximately 8 miles from the nearest residence. The fire burned across a mixed ownership of federal, private, and industrial forest lands.

The fire created extensive areas of dead and dying trees and shrubs dispersed across a landscape that had historically high vegetation densities and high fuel loading. As trees die from insect kill and burn-related stress, snags will continue to be created within the severely burned areas.

Preceding the Timbered Rock Fire, the Elk Creek Watershed Analysis (WA) was completed in 1995 and the South Cascades Late-Successional Reserve Assessment (LSRA) was completed in 1998. These documents emphasized the need to restore watershed functions, protect remaining mature and old-growth stands from catastrophic loss, accelerate development of late-successional habitats, reduce fuel levels in strategic locations, and create stand conditions to lower the potential for future catastrophic fire.

A catastrophic fire event occurred within the Elk Creek Late-Successional Reserve. This Draft EIS addresses this new condition while still pursuing recommendations from the South Cascade LSRA and Elk Creek WA.

1.1.1 Proposed Action

Due to the Timbered Rock Fire, the Butte Falls Resource Area, Medford District, Bureau of Land Management (BLM), proposes to take two actions. First, the BLM proposes to implement a number of restoration projects located within the Elk Creek Watershed. BLM-administered lands within this watershed are designated an LSR. Second, the BLM proposes to recover the economic value of trees killed as a result of the Timbered Rock Fire (salvage) while meeting LSR objectives. The proposed action and a reasonable range of alternatives are presented in detail in Chapter 2. Opportunities to conduct research related to post-fire logging may be incorporated into any action alternative or into a stand-alone alternative.

Based upon previous recommended restoration actions from the Elk Creek WA and the South Cascades LSRA, possible restoration projects would include, but not be limited to:

- Road decommissioning or improvement.
- Installation of fuel management zones.
- Thinnings to accelerate development of late-successional forest.
- Wildlife and fisheries habitat improvements.

Timber sales may be used as a tool to implement some of the fuel management zones or conduct thinnings to accelerate development of late-successional conditions in younger stands. Implementation of the restoration and protection projects would occur over the next 10 years. Implementation of LSR restoration projects or research proposals would be subject to availability of funding, personnel, and priorities, but could start in 2004.

In order to implement the salvage of fire-killed trees, a timber sale(s) would be held by the BLM following approval of the Record of Decision in early 2004.

Research related to post-fire logging is sparse in the scientific literature, particularly as relates to the drier parts of southwest Oregon and northern California. Opportunities exist to conduct scientific research and test assumptions of standard and guidelines relating to LSR management. The proposed action is to incorporate some of these learning opportunities into this EIS.

1.1.2 Description of the Project Area

The Elk Creek LSR and the Timbered Rock Fire area are located approximately 20 miles east of Medford, Oregon and just west of Lost Creek Reservoir (see Map 1-1). Of the 85,424 acres within the Elk Creek Watershed, 23,866 are public lands administered by the BLM. The Timbered Rock Fire affected approximately 27,000 acres of mixed federal, private, and commercial forest lands in what is generally referred to as a “checkerboard” ownership pattern (see Table 1.1-1 and Map 1-1b).

Table 1.1-1. Land Ownership/Jurisdiction in Acres within the Timbered Rock Fire, Elk Creek Watershed, and Elk Creek LSR

Land Owner/Jurisdiction	Elk Creek Watershed	Elk Creek LSR	Timbered Rock Fire
Public Lands			
Bureau of Land Management	23,866	23,866	11,774
Rogue River NF (LSR 222)	26,863	25,505	2,647
Umpqua NF (LSR 222)	186	186	84
Army Corps of Engineers	2,617		611
Oregon Division of State Land	238		234
Private Lands			
Industrial Forestland	27,319		11,140
Other Private Lands	4,335		610
Totals	**85,424**	**49,557**	**27,100**

NOTE: Acres were calculated using GIS. Fire acres include 182 acres in the Lost Creek Watershed.

The "project area" includes only public lands administered by the Bureau of Land Management. Opportunities for protection, enhancement, acceleration, and restoration of late-successional habitat and other proposed projects may occur anywhere within the Elk Creek LSR (LSR 224). A 400-foot "buffer" outside the watershed along the divides with Trail and Lost creeks has been included within the project area to provide an opportunity to analyze creation of fuel management zones along these divides, as presented in the South Cascades LSRA. Salvage opportunities would be confined to BLM-administered lands within the Timbered Rock Fire perimeter.

1.2 Need

1.2.1 Background

Public lands administered by the BLM in the Elk Creek Watershed were designated as Late-Successional Reserve through the Northwest Forest Plan (NFP) in April 1994 and incorporated into the 1995 Medford District Resource Management Plan (RMP). The RMP deferred timber harvest and other management activities for 10 years on 7,611 acres in the Elk Creek Watershed due to high cumulative effects. This deferral was based on equivalent clearcut acres, compacted acres, openings in the transient snow zone, and road density. Subsequently, management focused on restoration projects within the watershed.

Consistent with LSR management objectives, projects were designed and implemented to protect or accelerate late-successional habitat or improve threatened or endangered species habitat in the LSR, including:

- Fuel management zones in the Morine Creek area.
- Pre-commercial thinnings (PCT) in young plantations.
- Fish habitat improvement projects.
- Water monitoring in Morine and Hungry creeks.

1.2.2 Need

The Timbered Rock Fire created the need:

- To rehabilitate fire damaged landscape.
- To assess changes in late-successional habitat conditions within the Elk Creek LSR.
- To reevaluate restoration and other actions to enhance or accelerate development of late-successional forest habitat conditions and increase resiliency to disturbance throughout the Elk Creek LSR.
- To assess the possibility of economic recovery of fire-killed trees (salvage) within the fire perimeter, consistent with LSR objectives.
- To consider conducting research related to post-fire conditions and activities.

Given the controversy associated with management of Late-Successional Reserves and any proposal to recover the economic value of fire-killed trees (salvage), particularly within an LSR, it was determined that preparation of an Environmental Impact Statement (EIS) would best serve the public and land managers.

1.2.3 Controversy

Economic recovery of trees killed by wildfires (salvage) has become a very controversial subject. There are differing viewpoints in the scientific literature. State and federal land management and regulatory agencies present differing information. Some groups use guidelines from "*Wildfire and Salvage Logging*" (Beschta, et al. 1995) as rationale for no salvage logging, and some groups push for maximum economic recovery of dead timber. A number of scientists contend that salvage can eliminate or reduce future fire intensity. Conversely, others contend salvage logging would not affect future fire intensity. Some maintain that any impacts from salvage logging are not justified because of the impacts already created by the wildfire. However, with all the controversy, a study by McIver and Starr in 2001 reports that only 21 studies worldwide have actually examined the environmental effects of post-fire logging.

Proposals to salvage fire-killed trees in a designated LSR will also be controversial. The following comment and response is included in the Record of Decision for the NFP:

- Comment: Salvage logging is the most nebulous category in practice and agency standards and guidelines leave too much to be determined by whim. Therefore, confine all salvage logging to adaptive management areas.
- Response: To ensure that salvage in late-successional reserves is consistent with the intent of the standards and guidelines, salvage is subject to review by the Regional Ecosystem Office and approval by the Regional Interagency Executive Committee. Salvage is not required to be beneficial, but is designed to permit the recovery of timber volume in those instances where catastrophic events clearly kill more trees (resulting in more snags and down logs in the short and long term) than are needed to maintain late-successional conditions. For example, if a major blowdown event leaves dead trees 15 feet deep over the landscape, a determination could be made that only a portion of those logs are needed to meet the objectives of the reserve. The rest, after consideration of the impacts of the harvest systems themselves, including any required roading, might be available for salvage. Salvage of individual dead trees within the landscape is not intended within late-successional reserves under the salvage guidelines. Work of the Regional Ecosystem Office and adaptive management related to case-by-case examples will continue to define where salvage is appropriate (USDA and USDI 1994a, 66).

The following quotes are from the South Cascades LSRA, page 168 and specifically address salvage logging in an LSR (see Appendix B).

> "Salvage inside LSRs was recognized as a contentious issue in Forest Ecosystem Management: An Ecological, Economic, and Social Assessment (FEMAT, July 1993). Three prescriptions were considered at that time, from no salvage to salvage with minimal guidelines. Prescription 2, limited salvage in LSRs, was carried forward and incorporated in the ROD."

> "The ROD provides direction for salvage and states, 'salvage guidelines are intended to prevent negative effects on late-successional habitat, while permitting some commercial wood volume removal.' (ROD, C-13). The core team has not found a biological rationale for salvage. The following approaches and criteria for salvage are meant to minimize effects to late-successional species. The decision to salvage must be based on site-specific conditions, with the understanding that salvage operations should not diminish late-successional habitat suitability now or in the future. Standards and Guidelines for salvage are found on pages C-13 through C-16 in the ROD."

> "It is hoped that the following approaches, criteria, and process considerations will eliminate the need for each interdisciplinary team to reconsider the philosophical debate concerning whether salvage is generically appropriate in LSR allocations, and instead concentrate on if and where salvage helps meet Plan and LSR objectives for a given stand replacement event."

The results of delay in salvaging fire-killed trees are also a matter of controversy. Delay causes a loss in quantity, utility, and economic value of the dead trees. This loss in recoverability is directly related to size classes. Smaller trees lose their quality and economic value quicker than larger trees. Considering the time needed to prepare the required environmental analysis documents, the delay could result in a loss of salvage opportunity in small diameter trees. A comment received on the DEIS from an industrial forestland owner stated, "Within one year, checking in the smaller logs (less than 10 inches) has made them difficult to process."

Private industrial timber companies started salvage operations while smoke was still rising from the Timbered Rock Fire. This opportunity is not available to federal agencies such as the BLM. The BLM and industrial timber companies have different stakeholders and management objectives. Given the present schedule for completing this EIS, it is assumed it would not be possible to salvage some of the merchantable size timber because of the delay in harvest. Any additional delay would increase this amount and thereby further reduce returns to the US Treasury (see Chapter 3.17 – Economics). Paradoxically, these smaller trees have less value than larger trees that are left as ecological legacies.

Debate also exists in the reported role of salvage as a mechanism to fund restoration and rehabilitation activities following a wildfire. Under the BLM's budgeting process, receipts from BLM green timber sales are deposited into the

US Treasury or into special accounts established by Congress for a variety of purposes. Receipts from BLM salvage sales are deposited into a Forest Health account to be used in other areas. Funds annually appropriated by Congress are used to finance rehabilitation and restoration projects. Some road maintenance or improvement projects may be funded through timber sale(s) where that work is needed to implement the timber sale(s).

There could be disagreements regarding proposals to implement commercial thinnings to accelerate late-successional forest characteristics in Douglas-fir stands from 30 to 80 years old. Also, thinning in pine release stands could include trees greater than 80 years old, but less than 24" DBH, consistent with LSRA recommendations. Both of these types of projects are recommended in the LSRA and could involve commercial removal of green trees within an LSR.

While these controversies will be addressed in this EIS, it is not the intent of, nor is it reasonable to assume, this EIS can resolve these controversies. Regarding salvage in this EIS, the intent is to determine what level of salvage, if any, is appropriate on BLM-administered land within the Timbered Rock Fire perimeter while still meeting LSR objectives. Restoration projects are proposed as treatments to accelerate development of late-successional forest characteristics or protection of late-successional habitat within the LSR. Salvage within the Timbered Rock Fire perimeter is proposed to recover the economic value of some fire-killed trees while still meeting LSR objectives.

1.3 Purpose

In addition to analyzing possible salvage opportunities, the purpose of this EIS is to analyze proposed actions designed to move resource conditions closer to the desired future conditions identified in the NFP, Elk Creek WA, and South Cascades LSR Assessment. Furthermore, scientific debate surrounds the “fire salvage” issue, and related NEPA documentation is continually challenged. In response to these disputes, the followings objectives have been identified. Where possible, the source of the objective and quantifying indicator is shown. Sources include: Northwest Forest Plan (NFP), Medford District RMP, Elk Creek Watershed Analysis (WA), and South Cascades Late Successional Reserve Assessment (LSRA). The following objectives are not listed in any particular order. The intent is to implement each to the extent feasible. Many of these documents can be found on the internet at either the Oregon/Washington BLM home page (http://www.or.blm.gov) or Medford District, BLM home page (http://www.or.blm.gov/Medford).

1.3.1 Objectives

1. Manage to protect and enhance conditions of late-successional and old growth forest ecosystems (NFP). Desired future condition identified in LSRA is 55 percent of LSR and 75 percent of riparian reserves in late seral vegetation 80 or more years old. (LSRA) (acres)
2. Reduce potential amount of sedimentation resulting from the Timbered Rock Fire and any past or future management actions. (tons of sediment)
3. Manage to create, protect, and improve special habitats within the Elk Creek Watershed. (WA) (acres)
4. Restore anadromous fish habitat to increase survival rates by improving the abundance and quality of spawning gravels, deep pool habitat, side channels, and overwintering habitat (channel structures and log jams which can shelter fish), while maintaining water temperatures and quality that can sustain multiple fish species within the Elk Creek Watershed. (WA) (miles of habitat)
5. Manage the LSR to a level where no more than 28 percent of acres are in a high fire risk condition. (LSRA) (acres)
6. Improve existing suppression facilities and reestablish the role of fire to reduce wildfire size and cost and to increase resiliency to site disturbance.
7. Recover some economic value of fire-killed trees while meeting LSR and watershed objectives. (NFP and LSRA) (MMBF).
8. Where appropriate, conduct scientific investigations that could be implemented within the LSR to respond to controversial issues and scientific uncertainties related to salvage of fire-killed trees or fire effects on critical resources.
9. Analyze effects associated with fire salvage so future efforts can be tiered to this analysis.

1.4 Legal Requirements

1.4.1 Relationship to Legislation, BLM Policies, Plans, and Programs

1.4.1.1 Legislation

Management direction for BLM-administered lands comes from a variety of sources. Major federal legislation includes the following:

- Oregon and California (O&C) Act of August 28, 1937
- Federal Land Policy and Management Act (FLPMA) of 1976

- National Environmental Policy Act (NEPA) of 1969
- Endangered Species Act (ESA) of 1973
- Clean Air Act (CAA) of 1990
- Archaeological Resources Protection Act (ARPA) of 1979
- Clean Water Act (CWA) of 1987

This Draft EIS has been prepared consistent with rules and regulations based on these laws. Discussion on how these laws apply to BLM-administered lands can be found in the ROD for the NFP (USDA and USDI 1994a, 39-53).

1.4.1.2 BLM Policy

A variety of Bureau manuals provide guidance regarding management of public lands resources.

Manuals related to issues being addressed in this EIS include:

- BLM Manual 5400 - Timber Management
- BLM Manual 5700 - Forest Development
- BLM Manuals 9011, 9014, and 9015 - Noxious Weed Control
- BLM Manual 6840 - Sensitive Species

1.4.1.3 Plans and Other Documents

The Northwest Forest Plan (NFP), Medford District Resource Management Plan (RMP), Elk Creek Watershed Analysis (WA), and South Cascades Late-Successional Reserve Assessment (LSRA) address the need to enhance late-successional forest conditions, to protect these areas from catastrophic events, and to maintain or enhance special habitats. This is consistent with the overall management objective for LSRs as stated below. While not decision documents, the Elk Creek WA and South Cascades LSRA both contain specific recommendations to help achieve these objectives. For example, salvage recommendations from the South Cascades LSRA were used to develop Alternative C. Many of these recommendations have been brought forward as restoration projects to be analyzed in this Draft EIS.

Northwest Forest Plan (NFP)

The NFP designated Elk Creek Watershed as both a Tier 1 Key Watershed and a Late-Successional Reserve (LSR). The Elk Creek LSR is just one of a number of LSRs designated through the Northwest Forest Plan.

> "The objective of LSRs is to protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth related species including the northern spotted owl" (USDA and USDI 1994b, C-9).

Standards and Guidelines for LSRs recognize that salvage is an appropriate activity within LSRs (see Appendix A);

> "In all cases, planning for salvage should focus on long-range objectives, which are based on desired future condition of the forest. Because LSRs have been established to provide high quality habitat for species associated with late-successional forest conditions, management following a stand-replacing event should be designed to accelerate or not impede the development of those conditions." (USDA and USDI 1994b, C-14).

The NFP discusses the general concepts of the adaptive management process in the Implementation section (USDA and USDI 1994b, E-12 to E-15).

> "Adaptive management is a continuing process of action-based planning, monitoring, researching, evaluating and adjusting with the objective of improving the implementation and achieving the goals of these standards and guidelines. These standards and guideline are based on current scientific knowledge. To be successful, it must have the flexibility to adapt and respond to new information. Under the concept of adaptive management, new information will be evaluated and a decision will be made whether to make adjustments or changes. These standards and guidelines incorporate the concept of adaptive management. This approach will enable resource managers to determine how well management actions meet their objectives and what steps are needed to modify activities to increase success or improve results."

The preparation of the Elk Creek Watershed Analysis, the South Cascades Late-Successional Reserve Assessment, and this EIS are all part of this adaptive management process. As new information becomes available, it is compared to Standards and Guidelines to ensure new management direction is still focused on implementing those objectives. The Timbered Rock Fire has created a need to reevaluate and adjust with the overall goal of achieving LSR management objectives.

Medford District Resource Management Plan (RMP)

The RMP Record of Decision was signed June 1995 and incorporated decisions made in the NFP. The approved RMP responds to the need for a healthy forest and rangeland ecosystem with habitat that would contribute toward and support populations of native species, particularly those associated with late-successional and old growth forests. It also responds to the need for a sustainable supply of timber and other forest products that would help maintain the stability of local and regional economies, and contribute valuable resources to the national economy.

South Cascades Late-Successional Reserve Assessment (LSRA)

Late-Successional Reserve Assessments are prepared for each designated Late-Successional Reserve (LSR) or group of smaller LSRs before habitat manipulation activities are designed and implemented. An LSRA provides a first approximation assessment. It may be revised as more is learned about the area and as needs and conditions change. It is an administrative document intended to provide information to managers on existing conditions and needs, as well as treatment criteria. This allows managers to prioritize and make better decisions on projects designed to further the objectives of Late-Successional Reserves. The Elk Creek LSR (224) is included in the South Cascades LSRA and was completed in April 1998 by an interagency team of specialists. LSRAs are not decision documents. They involve analytical processes, not decision-making processes with a proposed action requiring NEPA documentation.

Elk Creek Watershed Analysis (WA)

The Elk Creek Watershed Analysis was prepared by an interdisciplinary team made up of Bureau of Land Management and Rogue River National Forest specialists. This analysis followed guidance contained in the *Federal Guide for Watershed Analysis, Version 2.2*, August 1995. Watershed analysis is a systematic procedure for characterizing watershed and ecological processes to meet specific management and social objectives. The analysis focused on collecting and compiling information within the watershed that is essential for making sound management decisions. It is an analytical process, not a decision-making process with a proposed action requiring NEPA documentation. It serves as the basis for developing project-specific proposals; and identifying monitoring and restoration needs for the watershed.

National Fire Plan

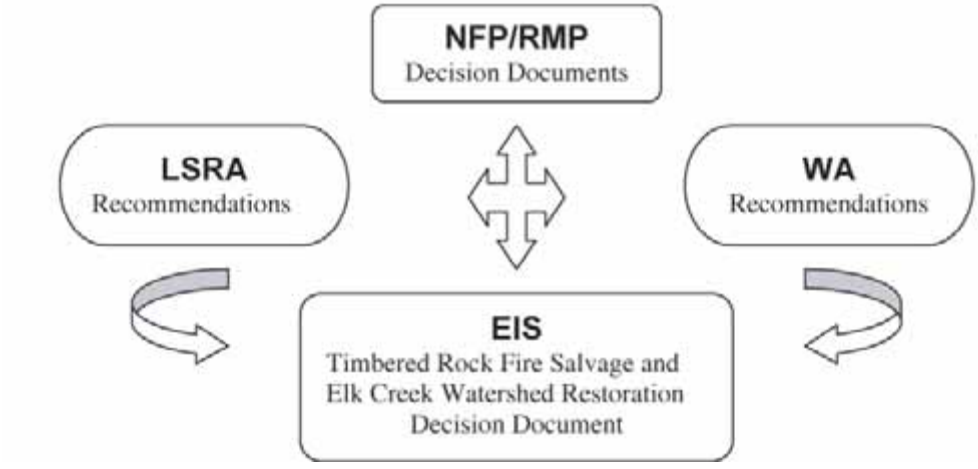
The National Fire Plan is relatively new legislation developed from the report by the Secretaries of Agriculture and Interior to the President (*Managing the Impact of Wildfires on Communities and the Environment*, September 8, 2000). This report was made at the urging of the Western Governors Association in response to the wildfires in 2000. Successful implementation of the National Fire Plan would, in the long-term, reduce the number of small fires that become large fires, restore natural ecological systems to minimize uncharacteristically intense fires, and reduce the threat to life and property from catastrophic wildfire. A key element of the National Fire Plan is its focus on collaboration with communities, interest groups, State and Federal agencies, and tribal governments. In the National Fire Plan, Elk Creek and Trail were identified as communities at risk from wildfire.

1.4.2 Consultation and Coordination with Other Agencies

1.4.2.1 American Indian Tribes

Consultation with American Indian Tribes was implemented on January 28, 2003 with a scoping letter for the Timbered Rock Fire Salvage and Elk Creek Watershed Restoration Draft EIS. This letter was sent to Affiliated Tribes of Northwest Indians; Cow Creek Band of Umpqua Tribe; Columbia River Intertribal Fish Commission; Oregon Commission of Indian Services; Confederated Tribes of the Grande Ronde; Confederated Tribes of the Siletz; Coquille Indian Tribe; Klamath Tribe; Burns Paiute Tribe; Confederated Tribes, Warm Springs Reservation; and Confederated Tribes, Umatilla Indian Reservation. Three American Indian Tribes requested, and were sent on August 15, 2003, copies of the Draft EIS for review.

Figure 1.4-1. Relationship Between FEIS and Other Documents



1.4.2.2 US Fish and Wildlife Service and National Oceanic and Atmospheric Administration–Fisheries

Consultation with the US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration–Fisheries (NOAA-Fish) is required under Section 7 of the Endangered Species Act (ESA) for Threatened and Endangered species, i.e. northern spotted owl (*Strix occidentalis caurina*) and coho salmon (*Oncorhynchus kisutch*).

A Biological Assessment (BA) for coho was prepared on the Preferred Alternative and forwarded to NOAA-Fish. The Letter of Concurrence (LOC) date August 29, 2003 documenting the "May Effect, Not Likely to Adversely Affect" (NLAA) determination is included in Appendix J.

Wildlife and botany T&E species consultation with the USFWS was included in a programmatic BA prepared for the Medford District BLM, Rogue River National Forest, and Siskiyou National Forest. There are no botanical T&E species located within the project area. The only wildlife species found within the project area requiring consultation with USFWS is the northern spotted owl (NSO). Excerpts relating to this EIS from Biological Opinion 1-14-03-F-511 dated October 20, 2003 are included in Appendix N.

1.4.2.3 US Forest Service

Approximately 2,647 acres of the Rogue River National Forest (RRNF) and 84 acres of the Umpqua National Forest (UNF) were affected by the Timbered Rock Fire. The UNF declined to participate as a formal cooperating agency, although they may accept the EIS in any separate decision documents regarding the UNF portions of the fire area. The UNF appointed a liaison to work with the Timbered Rock Fire Salvage and Elk Creek Watershed Restoration EIS Team throughout this EIS process.

Most of the acres in the UNF were burned with low or very low severity, so little opportunity exists for salvage and additional restoration is unnecessary. In addition, the Tiller Complex in the Tiller Ranger District and Apple Fire in the North Umpqua Ranger District created a work load which precludes involvement in the Timbered Rock EIS. The Umpqua National Forest plans to address possible salvage within the Tiller Complex beginning in Fall 2003.

Late-Successional Reserve 222 contains 25,500 acres administered by the RRNF. Of the approximately 2,647 acres burned in LSR 222, 2,339 were burned at low or very low severity, while the remaining 308 acres were burned at a high or moderate severity. However, based on preliminary US Forest Service analysis, only 12-15 acres are potentially available for salvage. Given other priorities, this is not sufficient acreage to be included in this EIS.

1.4.2.4 US Army Corps of Engineers

The US Army Corps of Engineers (USACE) manages approximately 610 acres affected by the Timbered Rock Fire. These lands were acquired as part of the proposed Elk Creek Dam project. They are not included within the management guidelines of the Northwest Forest Plan (NFP). Of the 610 acres of USACE lands affected by the fire, 5 were burned at a high severity, 216 were burned at a moderate severity, 213 were burned at low severity, and the remaining 177 acres were burned at low or very low severity. The USACE has declined to participate as a cooperating agency in the development of this EIS.

1.5 Scoping and Identification of Issues

1.5.1 Scoping

Scoping is a process used to promote public involvement in BLM projects. The "public" includes all individuals, agencies, and organizations that might be interested in, or affected by the proposal. Public involvement regarding the proposal and the use of available resources was conducted to identify the desires, expectations, and concerns of interested and affected publics. Based on input received during scoping, major issues were identified regarding the proposal. For planning purposes, an "issue" is an effect (or perceived effect, risk, or hazard) on physical, biological, social, or economic resources. These issues provide a focus for environmental analysis and a basis for resulting decisions. The major issues brought forward were used to formulate alternatives, identify appropriate design features, or analyze environmental effects. Also of critical importance is separating the existing effects of the fire from the expected effects of proposed salvage and restoration in the LSR.

In late January 2003, a group of scientists from Oregon State University (OSU) visited some past fires in the Butte Falls Resource Area with the idea of taking a comparative look at some of the issues of concern in this document. Also, they were asked to identify some research questions that could be appropriately analyzed in the Elk Creek Watershed (see Appendix G). Alternative G was developed in concert with these scientists in order to respond to the EIS objectives.

1.5.2 Major Issues to be Addressed in Detail

The following issues were identified through public scoping and internal evaluation.

1.5.2.1 Issue 1: Recovery of the economic value of fire-killed trees

The Timbered Rock Fire killed a large number of trees that could be salvaged. Salvage logging in an LSR is controversial in scientific and emotional terms. Conflict exists between harvesting dead trees before they lose their economic value and leaving dead trees to lessen impacts on already impacted lands.

Some publics believe it is the responsibility of the BLM to recover the economic value of the fire-killed trees. Others would like dead trees to remain and believe the economic value is not worth the potential adverse effects caused by removal of dead trees. Owners of private forestlands impacted by the fire have started salvage logging.

Indicators: Board feet of dead trees available for sale and acres or number of dead trees remaining on site.

1.5.2.2 Issue 2: Fuel Loading within the Elk Creek Watershed.

Dense stands of vegetation in the project area create heavy fuel loads and ladder fuels. Fuel loading has been and continues to be a hazard to rural residences, adjacent private lands, and remaining late-successional habitat. Years of fire exclusion within the LSR may have placed late-successional habitat at greater risk for a stand replacing fire. Existing fuel loads do not appear to be within the range of natural variability.

Indicators: Reduction or increase in fuel loading resulting from proposed salvage or restoration projects. Acres of fuel management zones created to provide protection to communities at risk, late-successional forest, and/or adjacent commercial forestlands. Acres of pine release to improve resiliency to disturbance.

1.5.2.3 Issue 3: Coarse Woody Debris and Snag Levels

Snags and coarse woody debris (CWD) are critical components of late-successional forest habitat. Size and distribution of snags and CWD have long-term effects on the quality of habitat. How much to retain and in what size class is a critical, somewhat subjective, determination. Designation of the Elk Creek Watershed as a late-successional reserve (LSR) requires a higher level of CWD and snag retention than on other public lands. Provision for CWD and snags levels has a direct effect on the amount of fire-killed trees that can be harvested.

Indicators: Number of snags by size class and amount of CWD retained.

1.5.2.4 Issue 4: Late-Successional Forest Habitat

Past fire suppression and timber harvest actions and the Timbered Rock Fire have affected late-successional forest conditions, making the remaining late-successional forest habitat more important. The LSRA identified the need to accelerate development of late-successional forest conditions in younger stands. Public lands within the Elk Creek Watershed have been recognized as providing critical supply of late-successional habitat through designation as a Late-Successional Reserve and a Tier 1 Key Watershed in the NFP and RMP. Opportunities exist to protect existing late-successional habitat through creation of fuel management zones. Opportunities also exist to accelerate development of this habitat through thinnings in younger stands. The South Cascades LSRA and Elk Creek WA suggest a number of actions to enhance, accelerate development of, or protection late-successional forest.

Indicators: Acres enhancing late-successional forest conditions. Acres of fuel management zones created.

1.5.2.5 Issue 5: Cumulative Effects from the Fire and Activity on Commercial Timberlands.

The Timbered Rock Fire, salvage logging on private commercial timberlands, potential salvage on BLM-administered lands, and possible late-successional habitat restoration projects can create cumulative effects within the Elk Creek Watershed.

Indicator: Evaluation of cumulative effects on critical resources or concerns, such as late-successional habitat, delivery of sediment to streams, soil productivity, potential mass wasting events, threatened or endangered species, CWD and snag levels, and water quality.

1.5.2.6 Issue 6: Road Density and Delivery of Sediment to Streams

Road density in the Elk Creek Watershed is high. Some roads may no longer be necessary and could be decommissioned. Some road surfaces have degraded and may be delivering sediments into the streams. Recommendations from the NFP, RMP, and other documents suggest treating roads is one of the best and most efficient methods of restoring degraded riparian and fisheries habitat.

Indicators: Miles of road improved or decommissioned.

1.5.2.7 Issue 7: Threatened or Endangered and Other Sensitive Species

The Elk Creek Watershed is important habitat for a number of threatened and endangered species including northern spotted owl, coho salmon, and bald eagles plus a number of other sensitive species. Both the Timbered Rock Fire and potential salvage logging and restoration projects could affect that habitat.

Indicators: Acres of late-successional forest habitat affected by the Timbered Rock Fire. Acres of early and mid-seral habitat identified for enhancement to accelerate development of late-successional forest conditions. Mitigation of water quality impacts. Improvement to fish habitat.

1.5.3 Other Issues Identified and Addressed

The following issues were identified during scoping but were determined to be minor issues. These issues will be addressed but not in great detail. No new major issues were identified during the comment period on the DEIS.

1.5.3.1 Consistency with the Northwest Forest Plan and Medford District Resource Management Plan

Concern was expressed during scoping that proposed alternatives would not be consistent with management guidance found in the NFP, Medford District RMP, South Cascades LSRA, and Elk Creek WA. NEPA allows analysis of alternatives inconsistent with laws or regulations. If the selected alternative is inconsistent with existing management direction, a plan amendment would be required.

1.5.3.2 Insect Outbreak following the Timbered Rock Fire

Anecdotal information indicates there may be insect outbreaks following catastrophic wildfire. Salvage of fire-killed trees may reduce the level of infestation.

1.5.3.3 Introduction or Spread of Noxious Weeds

Noxious weeds are known to exist within the watershed and fire suppression activities, salvage logging, and possible restoration projects have the potential to introduce or spread noxious weeds.

1.5.3.4 Hazardous Trees along Travel Routes (Public Safety)

Fire-killed trees may fall, posing a hazard to those traveling within the fire perimeter. While actual occurrence is extremely low, results can be very destructive.

1.5.4 Issues Identified but not Addressed in Detail

The following critical elements are not known to be present within the proposed project area, or would not be affected by any of the alternatives, and will not be discussed further: Areas of Critical Environmental Concern, Prime or Unique Farmlands, Flood Plains, Native American Religious Concerns, Wetlands, Wild and Scenic Rivers, Wild Horse and Burros, Roadless Areas, and Wilderness. In addition to these critical elements, completion of Elk Creek Dam is outside of the scope of this project and will not be addressed.

Recreation within the Elk Creek Watershed is casual use. Dispersed activities, such as camping, hiking, horseback riding, and hunting, are the main recreational pursuits. On BLM-administered land there are no recorded recreation sites. Within the watershed, but outside the project area, the USFS has two recorded dispersed campsites (Big Bear and Gravel Pit Campsites) and several non-monitored sites used during hunting season. In addition, there are approximately 10 miles of maintained trails within the watershed on USFS-managed lands. These trails are available to hikers, horseback riders, mountain bikes, and motorized vehicle. The proposed projects on BLM-administered lands would not change the traditional recreational use within the watershed.

Visual Resource Management (VRM) is the inventory of visible physical features of a landscape. Visual values are identified. Objectives are established for managing those values and management actions are identified to achieve visual management objectives. The VRM objectives within the Elk Creek Watershed are to partially retain the existing character of the landscape. The BLM-administered lands in the watershed are classified as VRM Class II, III and IV. “Class II areas retain the existing character of landscape; Class III areas partially retain the existing character of landscapes; and Class IV areas allow major modifications of existing character of landscapes.” (USDI 1995, 70). BLM-administered lands visible from the junction of Elk Creek Road and State Highway 62 are classified VRM Class II. The BLM-administered lands on both sides of Elk Creek Road are identified as VRM Class III, all other BLM-administered lands within the watershed are managed as VRM Class IV. The proposed projects within the watershed would follow the VRM guidance. The Timbered Rock Fire changed the visual quality within the watershed, but would not change the visual resource objectives.

1.6 Plan Consistency

One issue raised during scoping was plan consistency. It is not the intent of this project to change land use allocations, nor the Standards and Guidelines made through the Northwest Forest Plan and later adopted through the Medford District RMP. However, since the South Cascades Late-Successional Reserve Assessment (LSRA) and the Elk Creek Watershed Analysis (WA) are not decision documents, decisions to be made must be consistent with the NFP and Medford District RMP, but not necessarily the LSRA or WA. If decisions made through this process are not consistent with the NFP or the Medford District RMP, then a plan amendment would be required.

> "The Aquatic Conservation Strategy (ACS) was developed to restore and maintain the ecological health of watershed and aquatic ecosystems contained within them of public lands." (USDA and USDI 1994b, B-9).

The ACS established a variety of components including 1) Riparian Reserves, 2) Key Watersheds, 3) Watershed Analysis (WA), and 4) watershed restoration. This EIS focuses on watershed restoration and meeting objectives for Key Watershed. Following completion of the Final EIS and approval of the Record of Decision (ROD) it will be necessary to update the Elk Creek WA and South Cascades LSRA to reflect changed conditions, new information, and updated management direction. The proposed projects contained in this EIS are consistent with the ACS at a sub-watershed and watershed scale.

Salvage within an LSR is subject to review by the Regional Ecosystem Office (REO) (USDA and USDI 1994b, C-13). The EIS team identified four other concerns that were forwarded to REO or to the LSR Working Group for consistency considerations.

These concerns included:

- acreage limitations for various treatments identified in the South Cascades LSR Assessment;
- interpretation of the "10-acre rule" for salvage within an LSR;
- research within an LSR; and
- appropriate snag and CWD levels.

Following the LSR Working Group review, modifications were made to Alternative G, the Preferred Alternative or exemptions provided. Based upon these changes and exemptions from the LSR Working Group, it has been determined that restoration and salvage proposals now presented in Alternative G, the Preferred Alternative, are consistent with the NFP and the South Cascades LSRA, as appropriate. Coordination with REO concerning this review is shown in Appendix A, which includes the following:

> "The Work Group concluded that if proposed amounts of standing dead and down wood proposed for retention in salvage units were estimated from the DecAID tool, then the proposed action would be consistent with objectives for managing LSRs."

The LSR Working Group has completed its final review of projects proposed and analyzed in the EIS, as required in the May 13, 2003 memo (see Appendix A).

Research in the Elk Creek LSR is included as a major component in Alternative G, the Preferred Alternative. The research proposals in Appendix G are subjected to NEPA review in this document. As stated in the NFP, an assessment must address if the research is consistent with LSR objectives.

Some activities not otherwise consistent with objectives may be appropriate if:

- the research tests critical assumptions of the NFP Standard and Guidelines;
- the research will produce results important for habitat development, or
- the research represents continuation of long-term research.

Additionally, efforts should be made to locate non-conforming activities in land allocations where they will have the least effect upon the objectives of the standards and guidelines.

Both the reforestation and wildlife-snags research test assumptions from the NFP. The wildlife-snag research will evaluate snag levels that may be more appropriate to the drier portions of the NFP area. The reforestation research will address method of reforestation that may be more appropriate in reserve land use allocations. Both research proposals will produce results important for habitat development. Information developed from this research could be transferable to other parts of southwest Oregon and northern California, including late-successional reserves. However, neither of these research proposals represents continuation of long-term research.

The research proposals are related to post-fire conditions and activities and must be conducted in a recently burned area. A number of these areas exist within southwest Oregon but conducting this research in an LSR is appropriate. The research is aimed at evaluating wildlife-snag levels that could be appropriate to either Matrix or LSR designated lands. The reforestation research is evaluation method that also would apply to both land use allocations. Equally important is that the LSR land use allocation is anticipated to be present for a long time and opportunities could be available to evaluate the research over that time period.

Based on the above, Alternative G, the Preferred Alternative, is consistent with both the NFP and the Medford District RMP.

1.7 Decisions to be Made

The following decisions are to be made through this analysis:

- Whether to pursue restoration activities on BLM-administered lands within and adjacent to the LSR and Elk Creek Watershed and, if so, at what level and where,
- Whether to salvage fire-killed trees from BLM-administered lands within the Timbered Rock fire perimeter and, if so, at what level and where,
- What levels of snags and CWD should be retained, if salvage does occur,
- Whether to implement the proposed action, to vary the design of the proposed action while still meeting the Purpose and Need, or to defer any action at this time.

Some of the restoration decisions to be made would require further NEPA analysis prior to implementation. Others could be implemented as soon as the Record of Decision is approved. However, implementation could progress as funding and personnel are available. Many of the restoration and protection projects, particularly those outside the fire perimeter, would require site-specific surveys for various species or cultural resources and NEPA documentation prior to project implementation.

Salvage operations could proceed in the summer of 2004 as authorized through timber sales. This could include limited road improvements necessary to conduct salvage logging. Some of the late-successional forest restoration thinnings and pine release projects could also be implemented through timber sales or through stewardship contracts. Most of the restoration projects, including road decommissioning and improvements, some late-successional forest restoration projects, and fuel management zones proposals would only be implemented through appropriated funds.